IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A semiconductor device assembly of a plurality of semiconductor device assemblies, comprising:

a semiconductor die having an active surface having a plurality of bond pads thereon and an opposing second surface;

at least one projection connected to at least one bond pad of said plurality of bond pads on the active surface of said semiconductor die for direct connection to a substrate, said at least one projection including one of at least one solder ball and at least one solder bump; and

a paddle frame having no electrical leads for connection to a semiconductor die, the paddle frame including a pair of side rails, a plurality of cross-members, and a generally centrally positioned paddle of a [lead frame of a] plurality of paddle [lead] frames having the pair of side rails and the plurality of cross members connected to said paddle by a plurality of paddle support bars, said second surface of said semiconductor die being secured to said paddle,[; and] the [said] paddle being attached to the side rail by at least two of the [at least a] plurality of paddle support bars and being attached to the [said] cross members by at least two of the plurality of [said] support bars.

2. (Original) The semiconductor device assembly of claim 1, wherein said at least one projection includes a plurality of projections comprising a ball grid array (BGA) of solder balls.

3. (Original) The semiconductor device assembly of claim 1, wherein said at least one projection comprises at least one ball deposited by a wire bonding machine.

4. (Original) The semiconductor device assembly of claim 1, wherein said at least one projection comprises at least one stud bump deposited by a wire bonding machine.

5. (Previously Presented) The semiconductor device assembly of claim 1, further comprising:
an electrically non-conductive adhesive layer securing said second surface to said generally centrally positioned paddle.

6. (Original) The semiconductor device assembly of claim 5, wherein said adhesive layer comprises one of epoxy and polyimide.

7. (Withdrawn) The semiconductor device assembly of claim 1, further comprising:
an electrically conductive adhesive layer securing said second surface of said semiconductor die to said generally centrally positioned paddle.

8. (Withdrawn) The semiconductor device assembly of claim 7, wherein said electrically conductive adhesive layer comprises a eutectic material.

9. (Withdrawn) The semiconductor device assembly of claim 7, wherein said electrically conductive adhesive layer comprises a gold-silicon eutectic material.

10. (Withdrawn) The semiconductor device assembly of claim 7, wherein said electrically conductive adhesive layer comprises a metal-filled polymer, said metal filling comprising a heat conductive material.

11. (Withdrawn) The semiconductor device assembly of claim 7, wherein said electrically conductive adhesive layer comprises conductive polyimide.

12. (Currently Amended) The semiconductor device assembly of claim 1, further

comprising:

a [said] substrate having circuit connections, said plurality of bond pads bonded to said circuit connections.

13. (Original) The semiconductor device of claim 12, further comprising:

sealant packaging material enclosing a portion of said semiconductor die and covering a portion of said substrate.

14. (Currently Amended) A semiconductor device assembly of a plurality of semiconductor device assemblies, comprising:

a semiconductor die having an active surface having at least one bond pad thereon and an opposing second surface;

at least one projection secured to said at least one bond pad on said active surface of said semiconductor die connected to a substrate, said at least one projection including one of at least one solder ball and at least one solder bump; and

a metal paddle from a paddle [lead] frame having no electrical leads for connection to the semiconductor die of a plurality of paddle frames connected by a pair of rails having a plurality of cross members therebetween, said second surface of said semiconductor die being attached to said paddle, [; and] said metal paddle [is] attached to at least one side rail by at least a plurality of paddle support bars and being attached to a plurality of cross members by said support bars.

15. (Original) The semiconductor device assembly of claim 14, wherein said at least one projection comprises a ball grid array (BGA) of solder balls.

16. (Original) The semiconductor device assembly of claim 14, wherein said at least one projection comprises at least one ball deposited by a wire bonding machine.

17. (Original) The semiconductor device assembly of claim 14, wherein said at least one projection comprises at least one stud bump deposited by a wire bonding machine.

18. (Original) The semiconductor device assembly of claim 14, further comprising: an electrically non-conductive adhesive layer attaching said second surface to said paddle.

19. (Original) The semiconductor device assembly of claim 18, wherein said adhesive layer comprises one of epoxy and polyimide.

20. (Withdrawn) The semiconductor device assembly of claim 14, further comprising: an electrically conductive adhesive layer attaching said second surface to said metal paddle.

21. (Withdrawn) The semiconductor device assembly of claim 20, wherein said electrically conductive adhesive layer comprises a eutectic material.

22. (Withdrawn) The semiconductor device of claim 20, wherein said electrically conductive adhesive layer comprises a gold-silicon eutectic material.

23. (Withdrawn) The semiconductor device assembly of claim 21, wherein said electrically conductive adhesive layer comprises a metal-filled polymer, said metal filling comprising a heat conductor.

24. (Withdrawn) The semiconductor device assembly of claim 21, wherein said electrically conductive layer comprises conductive polyimide.

25. (Original) The semiconductor device assembly of claim 14, further comprising: a substrate having a plurality of circuit connections, said at least one bond pad connected to at least one circuit connection of said plurality of circuit connections.

26. (Original) The semiconductor device assembly of claim 25, further comprising: sealant packaging covering a portion of said semiconductor die and a portion of said substrate.

27. (Currently Amended) A semiconductor device assembly of a plurality of semiconductor device assemblies, comprising:

a semiconductor die having an active surface having a plurality of bond pads thereon and an opposing second surface;

a plurality of projections connected to said plurality of bond pads for direct connection to a host circuit board, said plurality of projections including one of a plurality of solder balls and a plurality of solder bumps; and

a metallic paddle having no electrical leads for connection to a semiconductor die secured to said second surface of said semiconductor die, said metallic paddle being attached to at least one side rail by at least a plurality of paddle support bars and being attached to a plurality of cross members by said support bars of a paddle frame.

28. (Original) The semiconductor device assembly of claim 27, wherein said plurality of projections comprises a ball grid array (BGA) of solder balls.

29. (Original) The semiconductor device assembly of claim 27, wherein said plurality of projections comprises balls deposited by a wire bonding machine.

30. (Original) The semiconductor device assembly of claim 27, wherein said plurality of projections comprises a plurality of stud bumps deposited by a wire bonding machine.

31. (Previously Presented) The semiconductor device assembly of claim 27, further comprising:

an electrically non-conductive adhesive layer connecting said second surface to said metallic

paddle.

32. (Original) The semiconductor device assembly of claim 31, wherein said adhesive layer comprises one of epoxy and polyimide.

33. (Withdrawn) The semiconductor device assembly of claim 27, further comprising: an electrically conductive adhesive layer connecting said second surface to said metallic paddle.

34. (Withdrawn) The semiconductor device assembly of claim 33, wherein said electrically conductive adhesive layer comprises a eutectic material.

35. (Withdrawn) The semiconductor device assembly of claim 33, wherein said electrically conductive adhesive layer comprises a gold-silicon eutectic material.

36. (Withdrawn) The semiconductor device assembly of claim 33, wherein said electrically conductive adhesive layer comprises a metal-filled polymer, said metal filling comprising a heat conductive material.

37. (Withdrawn) The semiconductor device assembly of claim 33, wherein said electrically conductive adhesive layer comprises conductive polyimide.

38. (Original) The semiconductor device of claim 27, further comprising: a substrate having a plurality of circuit connections, said plurality of bond pads connected to said plurality of circuit connections.

39. (Original) The semiconductor device assembly of claim 38, further comprising: sealant packaging covering a portion of said semiconductor die and a portion of said substrate.